

Application Serial No.: 10/068,506
Applicant(s): Pong et al.

Docket No.: N.C. 82,575

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An optical filter comprising:

- a. an organic, solar blind filter dye; and
- b. a UV-transparent, non-scattering and chemically stable substrate
wherein said filter dye is incorporated directly into said substrate.

Claim 2 (original): The filter of claim 1 wherein said filter dye is a cyanine dye.

Claim 3 (original): The filter of claim 1 wherein said filter dye is a cyclic cyanine dye.

Claim 4 (original): The filter of claim 1 wherein said filter dye is a 2,7-dialkyl-3,6-diazacyclohepta-1,6-diene complexed with a counterion.

Claim 5 (original): The filter of claim 1 wherein said filter dye is 2,7-dimethyl-3,6-diazacyclohepta-1,6-diene perchlorate.

Claims 6-7 (canceled)

Claim 8 (currently amended): ~~The filter of claim 1~~ An optical filter comprising:

- a. an organic, solar blind filter dye; and
- b. a UV-transparent, non-scattering and chemically stable substrate

wherein said substrate is a UV-transparent nanoporous silica glass solid having pores that are substantially filled with a UV-transparent solvent, said solvent being selected to dissolve said dye and also to match the refractive index of the nanoporous silica glass solid.

Claim 9 (original): The filter of claim 8 wherein said solvent comprises dibutyl phthalate or dibutyl succinate.

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Claim 10 (original): The filter of claim 1 wherein said substrate comprises a UV-transparent inorganic salt compressed to form a solid body.

Claim 11 (original): The filter of claim 10 wherein said inorganic salt is a halide salt of an alkali metal (Group 1a) or an alkaline earth metal (Group 2a).

Claim 12 (original): The filter of claim 11 wherein said halide salt is a fluoride, chloride, bromide or iodide salt.

Claim 13 (original): The filter of claim 11 wherein said alkali metal is K or Cs, and said alkali earth metal is Ca.

Claim 14 (original): The filter of claim 1 wherein said filter absorbs UV radiation having wavelengths between about 300 and 400 nm, and transmits UV radiation having a wavelength below about 300 nm.

Claims 15-24 (canceled)

Claim 25 (currently amended): An optical device comprising [[a]] an optical filter, said filter comprising:

- a. an organic, solar blind filter dye; and
 - b. a UV-transparent, non-scattering and chemically stable substrate
- wherein said filter dye is incorporated directly into said substrate.

Claim 26 (new): The optical device of claim 25 wherein said filter dye is a cyanine dye.

Claim 27 (new): The optical device of claim 25 wherein said filter dye is a cyclic cyanine dye.

Claim 28 (new): The optical device of claim 25 wherein said filter dye is a 2,7-dialkyl-3,6-diazacyclohepta-1,6-diene complexed with a counterion.

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Claim 29 (new): The optical device of claim 25 wherein said filter dye is 2,7-dimethyl-3,6-diazacyclohepta-1,6-diene perchlorate.

Claim 30 (new): The optical device of claim 25 wherein said substrate is a UV-transparent nanoporous silica glass solid having pores that are substantially filled with a UV-transparent solvent, said solvent being selected to dissolve said dye and also to match the refractive index of the nanoporous silica glass solid.

Claim 31 (new): The optical device of claim 30 wherein said solvent comprises dibutyl phthalate or dibutyl succinate.

Claim 32 (new): The optical device of claim 25 wherein said substrate comprises a UV-transparent inorganic salt compressed to form a solid body.

Claim 33 (new): The optical device of claim 32 wherein said inorganic salt is a halide salt of an alkali metal (Group 1a) or an alkaline earth metal (Group 2a).

Claim 34 (new): The optical device of claim 33 wherein said halide salt is a fluoride, chloride, bromide, or iodide salt.

Claim 35 (new): The optical device of claim 33 wherein said alkali metal is K or Cs, and said alkali earth metal is Ca.

Claim 36 (new): The optical device of claim 25 wherein said filter absorbs UV radiation having wavelengths between about 300 and 400 nm, and transmits UV radiation having a wavelength below about 300 nm.